

[0026] In an example, for the at least two NZP CSI-RS resources in the configuration signaling, different NZP CSI-RS resources may have the same or different EPREs.

[0027] In an example, the UE determines reference PDSCH transmission power corresponding to different NZP CSI-RS resources according to higher layer signaling sent by the base station when measuring channel states in the CSI according to the at least two NZP CSI-RS resources. Different NZP CSI-RS resources have the same or different reference PDSCH transmission power.

[0028] In an example, the configuration signaling may include configuration information of N NZP CSI-RS resources, the higher layer signaling comprises an assumption  $P_c^{(k)}$  of a reference PDSCH transmission power corresponding to each NZP CSI-RS resource, wherein k is the index of each NZP CSI-RS configuration,  $k=0, 1 \dots N-1$ , N is an integer larger than 2;

[0029] the step of determining by the UE reference PDSCH transmission power corresponding to different NZP CSI-RS resources may include: determining, by the UE, a reference PDSCH transmission power according to  $P_c^{(k)}$  when measuring CSI according to the k'th NZP CSI-RS.

[0030] In an example, the configuration signaling may include configuration information of N NZP CSI-RS resources, and the higher layer signaling may include an assumption  $P_c$  of a reference PDSCH transmission power corresponding to reference NZP CSI-RS resource;

[0031] the step of determining by the UE the reference PDSCH transmission power corresponding to different NZP CSI-RS may include: calculating, by the UE,  $P_c$  corresponding to the other NZP CSI-RS resource(s) other than the reference NZP CSI-RS resource according to the  $P_c^{(k)}$  corresponding to the reference NZP CSI-RS and the difference between the number of ports of different NZP CSI-RS, and determining the reference PDSCH transmission power according to the  $P_c^{(k)}$ ;

[0032] wherein the reference NZP CSI-RS resource are one of the at least two NZP CSI-RS resources, k is the index of the NZP CSI-RS resource other than the reference NZP CSI-RS resource,  $k=0, 1 \dots N-1$ , N is an integer larger than 2.

[0033] In an example, the configuration signaling may include configuration information of N NZP CSI-RS resources, and the higher layer signaling may include an assumption  $P_c$  of a reference PDSCH transmission power corresponding to reference NZP CSI-RS resource;

[0034] wherein the determining by the UE the reference PDSCH transmission power corresponding to different NZP CSI-RS resources comprises: calculating, by the UE, the reference PDSCH transmission power corresponding to the reference NZP CSI-RS according to the  $P_c$  corresponding to the reference NZP CSI-RS resources, and determining that the reference PDSCH transmission power remains the same when channel status is measured based on each NZP CSI-RS; wherein N is an integer equals or larger than 2.

[0035] In an example, the step of determining by the UE the reference PDSCH transmission power corresponding to the other NZP CSI-RS resources other than the reference NZP CSI-RS resource comprises calculating, by the UE, the  $P_c^{(k)}$  corresponding to the NZP CSI-RS resource other than the reference NZP CSI-RS resources according to the difference between the number of ports of different NZP CSI-RS and the  $P_c$  corresponding to the reference NZP CSI-RS resources.

[0036] In an example, the step of calculating the  $P_c^{(k)}$  corresponding to a first NZP CSI-RS resource other than the reference NZP CSI-RS resources may include:

$$P_c^{(k)} = \begin{cases} P_c & p_o = 1, p_k = 1 \\ \frac{p_o}{2} \cdot P_c & p_o \geq 2, p_k = 1 \\ \frac{2}{p_k} \cdot P_c & p_o = 1, p_k \geq 2 \\ \frac{p_o}{p_k} \cdot P_c & p_o \geq 2, p_k \geq 2 \end{cases}$$

[0037] wherein  $p_o$  is the number of ports of the reference NZP CSI-RS resources,  $p_k$  is the number of ports of the other NZP CSI-RS resource.

[0038] In an example, the configuration signaling may include configuration information of N NZP CSI-RS resources, the higher layer signaling comprises an assumption  $P_c$  of a reference PDSCH transmission power corresponding to all the N NZP CSI-RS, the UE determines the reference PDSCH transmission power corresponding to the N NZP CSI-RS resources according to the  $P_c$  in the higher layer signaling.

[0039] In an example, the configuration signaling may include configuration information of N NZP CSI-RS resources, the UE calculates a reference PDSCH transmission power corresponding to a portion of the NZP CSI-RS resources according to a pre-set assumption of the reference PDSCH transmission power; or

[0040] channel status is measured based on a portion of the NZP CSI-RS resources without using an assumption of reference transmission power.

[0041] In an example, the scheduling signaling may include information of DMRS ports allocated to the UE, the number of data transmission layers, and the number of RE collections actually occupied by DMRS  $N_{DMRS}$ .

[0042] In an example, the step of receiving by the UE the downlink data may include: receiving, by the UE, DMRS signals according to the allocated DMRS ports and the number of data transmission layers;

[0043] where DMRS ports 7-10 are used for supporting MU-MIMO transmission of the DMRS signals;

[0044] the method may also include: when the  $N_{DMRS}$  indicates the DMRS signals are transmitted using the RE collection of port 7, receiving, by the UE, PDSCH from the RE collection of port 9.

[0045] In an example, when a signal codeword is transmitted, or a codeword occupying 2 layers in initial transmission is retransmitted, information of DMRS ports allocated to the UE specifies that DMRS is transmitted only in the RE collection of port 7 or in the RE collections of both port 7 and port 9; and/or

[0046] when two codewords are transmitted, when the number of data transmission layers allocated to the UE is 2, when the DMRS occupies 1 RE collection, the information of DMRS ports allocated to the UE specifies that DMRS is transmitted in the RE collection of port 7 and port 8, when the DMRS occupies 2 RE collections, information of DMRS ports allocated to the UE specifies that the DMRS is transmitted in the RE collection of port 7 and port 8 or in the RE collection of port 9 and port 10.